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DERIVATIVES OF MONOSACCHARIDES AS CELL ADHESION

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INHIBITORS

This application is a divisional of 09/276,368 filed March 25, 1999 now U.S. Patent 6,599,085 and claims priority from foreign application INDIA 86/DEL/99 filed January 15, 1999.

FIELD OF THE INVENTION

This invention relates generally to compounds and processes for
10 synthesizing derivatives of 2-3-O-isopropylidene- α -L-xylo-2-hexulofuranosonic acid. The compounds of this invention are useful, inter-alia, for the inhibition and prevention of cell adhesion and cell adhesion-mediated pathologies, including inflammatory and autoimmune diseases, such as bronchial asthma, rheumatoid arthritis, type I diabetes, multiple sclerosis, allograft rejection and
15 psoriasis. This invention also relates to pharmacological compositions containing derivatives of 2-3-O-isopropylidene- α -L-xylo-2-hexulofuranosonic acid and the methods of treating such pathologies as listed above.

BACKGROUND OF THE INVENTION

20 Cell adhesion is a process by which cells associate with each other and migrate towards a specific target localized within the extracellular matrix. Specialized molecules, called cell adhesion molecules (CAMs), mediate these reactions. CAMs have been demonstrated to participate in various cell-cell, cell-extracellular matrix, and platelet-platelet interactions. CAMs influence the
25 leukocytes' adhesion to the vascular endothelium, their transendothelial